ABSTRACT

Multiple voltage regulators for use with a single load. The present invention allows power to be supplied to an electrical load using multiple voltage regulators based on the operating environment of the load. In one embodiment, a primary voltage regulator that is built of relatively low capacity and relatively high efficiency components is used to supply power from a limited power source. A secondary voltage regulator built of higher capacity and possibly lower efficiency components is used when power is from a less limited source. In one embodiment, a tertiary voltage regulator is used that is built of possibly higher capacity and lower efficiency components to provide even more power. It is important to note that use of voltage regulators as described herein does not require that higher capacity voltage regulators be less efficient than lower capacity voltage regulators